



1600

## RAW SEQUENCE LISTING

DATE: 07/16/2003

PATENT APPLICATION: US/09/807,742A

TIME: 15:48:18

Input Set : A:\1465us00.app

Output Set: N:\CRF4\07152003\I807742A.raw

3 <110> APPLICANT: DANIELL, HENRY  
 5 <120> TITLE OF INVENTION: PRODUCTION OF PHARMACEUTICAL PROTEINS IN TRANSGENIC  
 6 PLASTIDS  
 8 <130> FILE REFERENCE: 1465-PCT-US-00  
 10 <140> CURRENT APPLICATION NUMBER: 09/807,742A  
 11 <141> CURRENT FILING DATE: 2001-04-18  
 13 <150> PRIOR APPLICATION NUMBER: PCT/US01/06288  
 14 <151> PRIOR FILING DATE: 2001-02-28  
 16 <160> NUMBER OF SEQ ID NOS: 19  
 18 <170> SOFTWARE: PatentIn Ver. 2.1  
 20 <210> SEQ ID NO: 1  
 21 <211> LENGTH: 1250  
 22 <212> TYPE: PRT  
 23 <213> ORGANISM: Artificial Sequence  
 25 <220> FEATURE:  
 26 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
 27 peptide  
 29 <220> FEATURE:  
 30 <223> OTHER INFORMATION: This sequence may encompass 1-250 Gly Val Gly Val Pro  
 31 repeats  
 33 <400> SEQUENCE: 1  
 34 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
 35 1 5 10 15  
 37 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
 38 20 25 30  
 40 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
 41 35 40 45  
 43 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
 44 50 55 60  
 46 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
 47 65 70 75 80  
 49 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
 50 85 90 95  
 52 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val  
 53 100 105 110  
 55 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly  
 56 115 120 125  
 58 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val  
 59 130 135 140  
 61 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro  
 62 145 150 155 160  
 64 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly  
 65 165 170 175

ENTERED

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67 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
68      180      185      190
70 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
71      195      200      205
73 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
74      210      215      220
76 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
77 225      230      235      240
79 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
80      245      250      255
82 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
83      260      265      270
85 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
86      275      280      285
88 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
89      290      295      300
91 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
92 305      310      315      320
94 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
95      325      330      335
97 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
98      340      345      350
100 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
101      355      360      365
103 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
104      370      375      380
106 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
107 385      390      395      400
109 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
110      405      410      415
112 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
113      420      425      430
115 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
116      435      440      445
118 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
119      450      455      460
121 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
122 465      470      475      480
124 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
125      485      490      495
127 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
128      500      505      510
130 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
131      515      520      525
133 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
134      530      535      540
136 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
137 545      550      555      560
139 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly

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140          565          570          575
142 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
143          580          585          590
145 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
146          595          600          605
148 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
149          610          615          620
151 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
152 625          630          635          640
154 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
155          645          650          655
157 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
158          660          665          670
160 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
161          675          680          685
163 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
164          690          695          700
166 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
167 705          710          715          720
169 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
170          725          730          735
172 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
173          740          745          750
175 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
176          755          760          765
178 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
179          770          775          780
181 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
182 785          790          795          800
184 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
185          805          810          815
187 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
188          820          825          830
190 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
191          835          840          845
193 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
194          850          855          860
196 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
197 865          870          875          880
199 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
200          885          890          895
202 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
203          900          905          910
205 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
206          915          920          925
208 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
209          930          935          940
211 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
212 945          950          955          960

```

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```

214 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
215                      965                      970                      975
217 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
218                      980                      985                      990
220 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
221                      995                      1000                      1005
223 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
224      1010                      1015                      1020
226 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
227 1025                      1030                      1035                      1040
229 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
230                      1045                      1050                      1055
232 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
233                      1060                      1065                      1070
235 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
236      1075                      1080                      1085
238 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
239      1090                      1095                      1100
241 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
242 1105                      1110                      1115                      1120
244 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
245                      1125                      1130                      1135
247 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
248                      1140                      1145                      1150
250 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
251      1155                      1160                      1165
253 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
254      1170                      1175                      1180
256 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
257 1185                      1190                      1195                      1200
259 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
260                      1205                      1210                      1215
262 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
263                      1220                      1225                      1230
265 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
266      1235                      1240                      1245
268 Val Pro
269      1250
272 <210> SEQ ID NO: 2
273 <211> LENGTH: 6
274 <212> TYPE: PRT
275 <213> ORGANISM: Artificial Sequence
277 <220> FEATURE:
278 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative
279      endoplasmic reticulum retention signal
281 <400> SEQUENCE: 2
282 Ser Glu Lys Asp Glu Leu
283      1                      5
286 <210> SEQ ID NO: 3

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287 <211> LENGTH: 4
288 <212> TYPE: PRT
289 <213> ORGANISM: Artificial Sequence
291 <220> FEATURE:
292 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative
293     peptide
295 <400> SEQUENCE: 3
296 Gly Pro Gly Pro
297     1
300 <210> SEQ ID NO: 4
301 <211> LENGTH: 25
302 <212> TYPE: DNA
303 <213> ORGANISM: Artificial Sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
308 <400> SEQUENCE: 4
309 ccgtcgacgt agagaagtcg gtatt                25
312 <210> SEQ ID NO: 5
313 <211> LENGTH: 27
314 <212> TYPE: DNA
315 <213> ORGANISM: Artificial Sequence
317 <220> FEATURE:
318 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
320 <400> SEQUENCE: 5
321 gcccattggtta aaatcttggt ttatttta            27
324 <210> SEQ ID NO: 6
325 <211> LENGTH: 28
326 <212> TYPE: DNA
327 <213> ORGANISM: Artificial Sequence
329 <220> FEATURE:
330 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
332 <400> SEQUENCE: 6
333 cctttaaaaa gccttccatt ttctattt            28
336 <210> SEQ ID NO: 7
337 <211> LENGTH: 25
338 <212> TYPE: DNA
339 <213> ORGANISM: Artificial Sequence
341 <220> FEATURE:
342 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
344 <400> SEQUENCE: 7
345 gccatggttaa aatcttggtt tatta                25
348 <210> SEQ ID NO: 8
349 <211> LENGTH: 12
350 <212> TYPE: DNA
351 <213> ORGANISM: Artificial Sequence
353 <220> FEATURE:
354 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative
355     preferred nucleotide sequence
357 <400> SEQUENCE: 8

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**VERIFICATION SUMMARY**

DATE: 07/16/2003

PATENT APPLICATION: US/09/807,742A

TIME: 15:48:19

Input Set : A:\1465us00.app

Output Set: N:\CRF4\07152003\I807742A.raw